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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,216	04/30/2001	Jon C.R. Bennett	19282-025	1422

30623 7590 12/20/2004

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EXAMINER

WONG, BLANCHE

ART UNIT PAPER NUMBER

2667

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,216

Applicant(s)

BENNETT, JON C.R.

Examiner

Blanche Wong

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 25, 26 and 42-46 is/are rejected.
- 7) ☒ Claim(s) 5-24, 27-41 and 47-51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Jan10'02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4,25,26,42-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Bonneau (U.S. Pat No. 6,671,258).

With regard to claims 1,25,42, Bonneau discloses a system for hierarchically buffering packets (storing packetized data) and associated with traffic flow (transferring the packetized data), comprising: ingress port 19 that receives the packets of aggregate input stream 18, Fig. 2, col. 8, ln. 62-63 (an input configured to receive packets of data); the memory 12 organized into multiple sets 15 of logical queues 17, Fig. 2, col. 8, ln. 49-50 (a memory coupled to the input and configured to store packets of data); responding egress ports 20, Fig. 2, col. 9, ln. 9 (an output coupled to the memory and configured to transfer packets of data from the memory); and a controller such as QMM 24 that organizes and manages the memory 12, Fig. 2, according to a selected queuing scheme, ln. 8, col. 43-46 (a controller coupled to the memory and configured to control the memory to store packets of data in queues, as recited in cl. 1) (a control means coupled to the input and to the output, as recited in cl. 25). Furthermore, Bonneau discloses the memory 12, Fig. 2, may be partitioned in a hierarchical manner in accordance with the queuing scheme, col. 9, ln. 17-18 (the memory to store packets of

data in queues associated with a hierarchy) For example, Bonneau discloses four levels in the hierarchical partitionment, col. 9, ln. 20. The shared memory space 14 is a subset, col. 9, ln. 22 (a first level of the hierarchy includes a group of queue group components). Each next level is more granular, col. 9, ln. 25-26, and is a subset of subset, col. 9, ln. 19-52 (at least one of the queue group components in the group at the first level includes a group of queue group components associated with a second level of the hierarchy that is different from the first level of the hierarchy). See also Fig. 3 and 4.

With regard to claims 2,43, Bonneau further discloses 4 levels in the hierarchical partitionment, col. 9, ln. 20 (wherein N is greater than two), and a shared buffer space 14 and the excess memory space above the shared buffer space, col. 9, ln. 24 (wherein at least one queue group component in each level other than the two logically-lowest levels includes at least two queue group components associated with a logically-lower level). Fig. 2, col. 9, ln. 19-39; See also Fig. 3 and 4.

With regard to claims 3,26, Bonneau further discloses a more granular second level, col. 9, ln. 25, and a still more granular third level, col. 9, ln. 28 (a level immediately logically lower in the hierarchy).

With regard to claim 4, Bonneau further discloses at a first or top level, the memory is logically partitioned into a shared buffer space 14, Fig. 2, which occupies a subset (component), col. 9, ln. 20-21 (the controller is configured to control the memory to store multiple groups of queue group components in association with the first level of the hierarchy).

With regard to claim 44, Bonneau further discloses the QMM reserves the appropriate amount of memory, col. 8, ln. 66-67 (determining the effective lengths of the queue group components). See also col. 10, ln. 26-28.

With regard to claim 45, Bonneau further discloses the function of matching an inbound packet to a given logical queue 17 is based in part on header or address information carried by the packet and stored connection configuration information, col. 9, ln. 2-5 (the effective lengths is based on at least one of queue size, type of source, size of source, and service requirements associated with a queue).

With regard to claim 46, it is inherent and very well be that the effective length vary directly with queue size. See also col. 9, ln. 53-col. 10, ln. 47.

Allowable Subject Matter

3. Claims 5-24,27-41,47-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW

December 7, 2004

Chau T. Nguyen

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